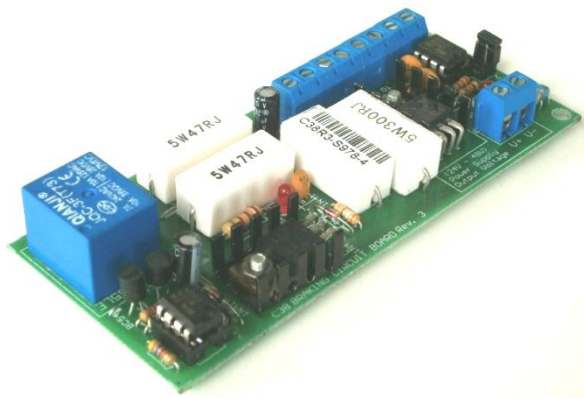


C38 BREAKING CIRCUIT BOARD Rev. 3



FEBRUARY, 2015

USER'S MANUAL

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1.0 FEATURES

- Braking Circuit for switching mode power supply.
- Prevents Back EMF.
- Supports 24V, 36 and 48V Power Supplies.
- Jumpers to select the Operating voltage.
- Up to 12Amps.
- Screw Terminal for driver power connection.

2.0 SPECIFICATIONS

Supported Power Supply	Switching mode
Supported Voltages	24V, 36V or 48V
Logic supply voltage (VDC)	5V and 12V
Maximum Supported Current	12Amp

3.0 WARNINGS



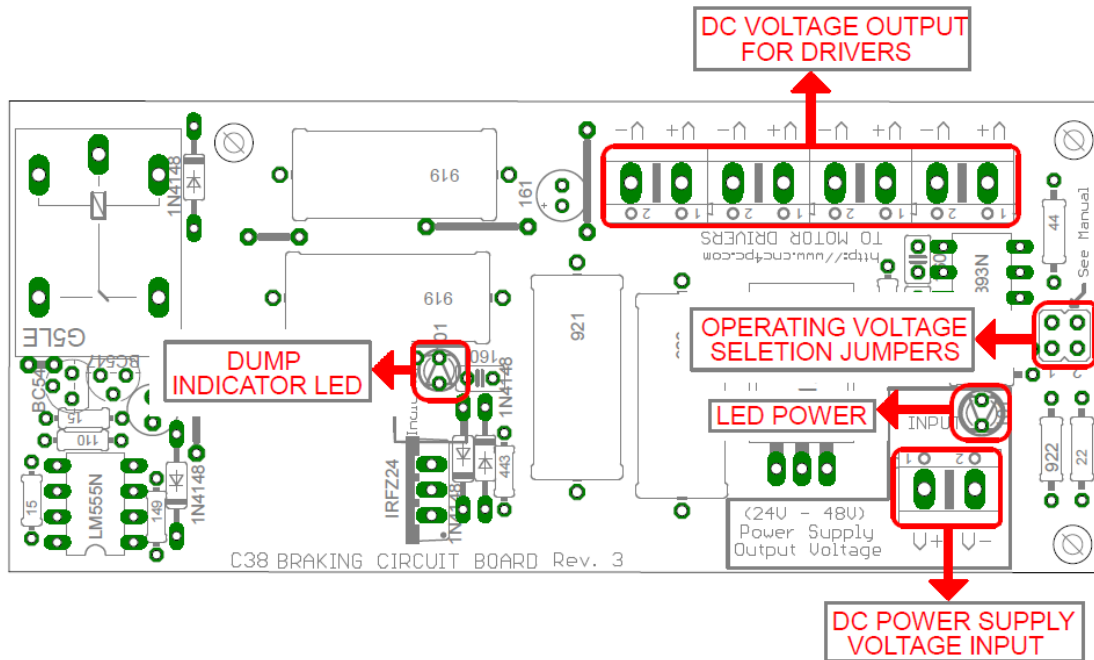
Electrical shock or serious physical injury could result due to misuse Control BOX.

Disconnect power cables while installing the Control Box Components.



Read and follow instructions on the manual.

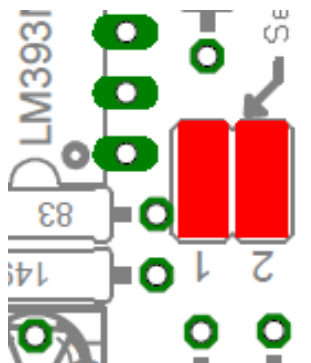
4.0 BOARD DESCRIPTION



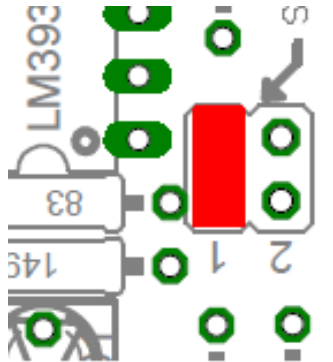
5.0 TUNING AND INSTALLING THE BOARD (STEP BY STEP)

- Step 1.** Turn ON the switching mode DC Power Supply.
- Step 2.** Using a multimeter, measure the power Supply output Voltage.
- Step 3.** Select the C38 operating DC voltage by using the selection jumpers.

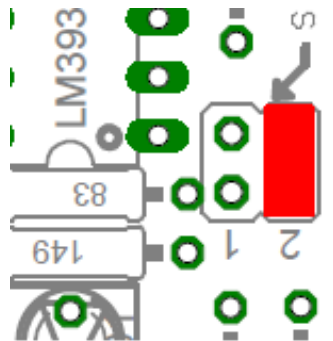
24VDC_PS



36VDC_PS



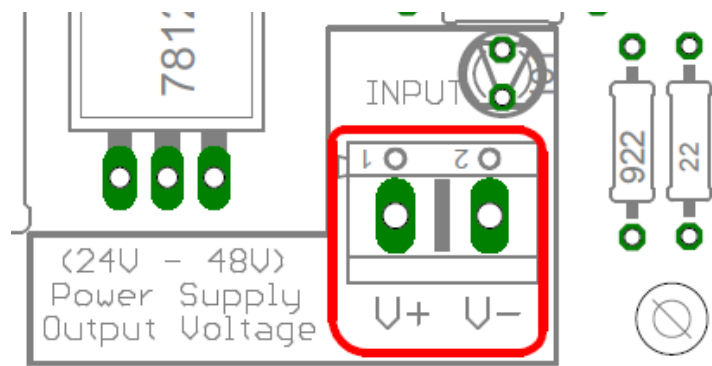
48VDC_PS



Supported voltages are 24V, 36V and 48V. Be sure that the power supply provides one of these voltages.

Step 4. Use the potentiometer in the Power supply to adjust the output to the minimum output voltage.

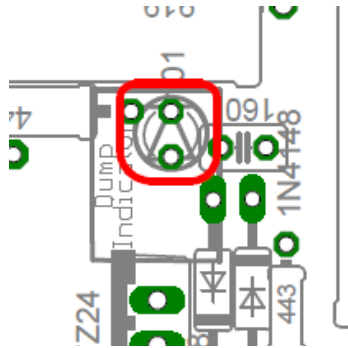
Step 5. Connect the power supply to the C38 DC input voltage terminals.



Step6.

Note: This is a critical step because damage could be caused to the C38. Read carefully this step before proceeding.

Increment the power supply output voltage until the dump indicator LED lights.
IMMEDIATELY turn OFF the power supply.



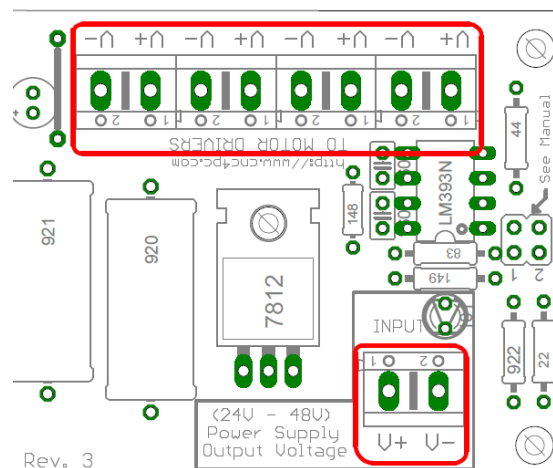
Step 7. Disconnect the power supply from the C38.

Step 8. Turn ON the power supply and measure the output voltage.

Step 9. Using the potentiometer in the Power supply, reduce in 0.5V the output voltage.
e.g. if the measured voltage in the step 8 was 48.3VDC, in this step the voltage should be reduced to 47.8VDC.

Step 10. The C38 is calibrated and ready to be use.

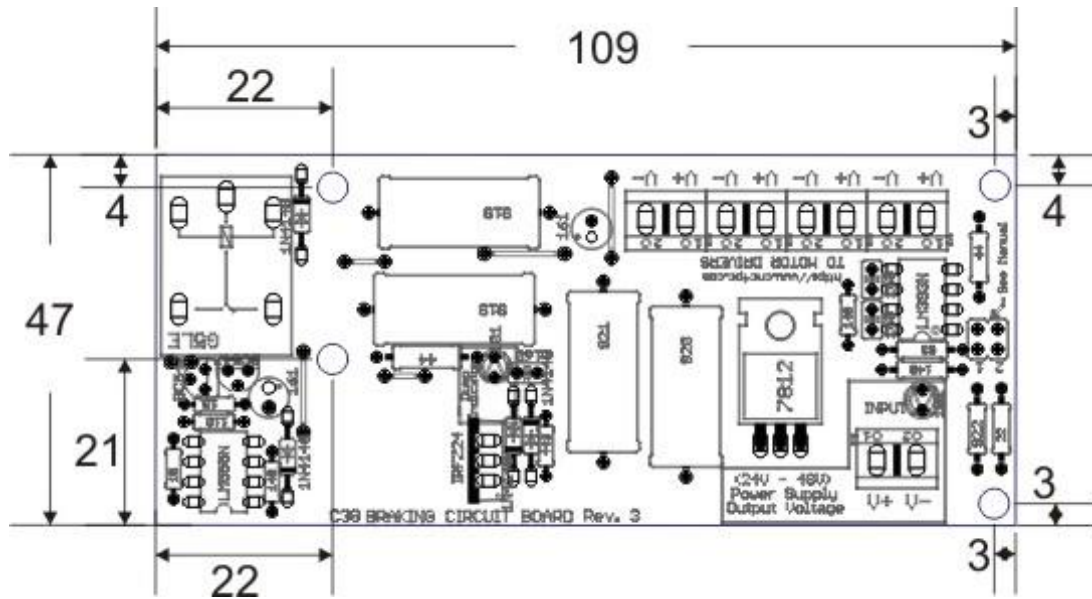
Step 11. Turn OFF the power supply, Connect the power supply to the C38 DC input voltage terminals and connect the drivers to the C38.



User's Manual



7.0 DIMENSIONS



All dimensions are in millimeters.

Disclaimer:

Use caution. CNC machines can be dangerous machines. Neither DUNCAN USA, LLC nor Arturo Duncan are liable for any accidents resulting from the improper use of these devices. This board is not a fail-safe device and it should not be used in life support systems or in other devices where its failure or possible erratic operation could cause property damage, bodily injury or loss of life.